

## Determinants of parental involvement in early literacy development: a scoping review

Novia Solichah<sup>1,2</sup>, Nur Ainy Fardana<sup>1</sup>, Samian<sup>1</sup>

<sup>1</sup>Department of Psychology, Faculty of Psychology, Universitas Airlangga, Surabaya, Indonesia

<sup>2</sup>Department of Psychology, Faculty of Psychology, UIN Maulana Malik Ibrahim, Malang, Indonesia

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### ABSTRACT

Parental involvement plays a pivotal role in fostering early literacy skills. Understanding the factors influencing parental involvement is essential for promoting effective intervention in childhood. This study aims to identify and explore the determinants of parental involvement in early literacy development. The scoping review adheres to PRISMA guidelines from eight electronic databases: SAGE, Research Gate, Semantic Scholar, Google Scholar, Science Direct, Taylor and Francis, Scopus, and Springer. The criteria include research on parental involvement and early literacy, handling children aged 0-6 years and parents, and publishing original research articles and literature reviews. The search yielded 13 relevant studies. The analysis results show the following determinants of parental involvement in early literacy development: internal factors (i.e., parent depression, parent fidelity, parental genetics, parent's perspective, parent's support, parental positive motivation and belief, parental estimation, and parent expectation) and external factors (i.e., socioeconomic status, parents' education, parental literacy experience, family risk home literacy environment, and emergent literacy skills). The study results aim to inform targeted interventions to enhance parental involvement in early literacy across diverse contexts.

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### Corresponding Author:

Nur Ainy Fardana

Department of Psychology, Faculty of Psychology, Universitas Airlangga

4-6 Airlangga Road, East Java, Indonesia

Email: nurainy.fardana@psikologi.unair.ac.id

## 1. INTRODUCTION

Research has underscored the pivotal role of literacy skills in children's social and academic development within school settings [1]. It has been suggested that a literate population fosters a pool of potential and skilled human resources for the future [2]. In addition, early reading and writing skills are robust indicators of children's future reading development, emphasizing the importance of early intervention [3].

Early literacy skills are developed from language development, which arises from children interacting with their surrounding environment [4]. Thus, interactions within the child's environment, particularly between children and parents, play a significant role in fostering early literacy skills. Numerous studies have highlighted parents' crucial role in supporting these abilities' growth [5]–[7]. Research indicates that families who stimulate their children's literacy skills from an early age tend to have children with higher reading abilities [8]. For instance, parents can select texts or words encountered by children, encourage writing within the household setting, and guide children's involvement in interactive sessions of reading storybooks [9].

Previous research on parental participation in early literacy development suggests that activities like singing, poetry-reading, storytelling, drawing, and playing together can significantly enhance early literacy

skills [10], [11]. Strong evidence exists linking parental engagement with developing early literacy and reading skills [12]. Additionally, studies have shown a correlation between home literacy environment and early literacy skills [13]. Strong evidence indicates that parental involvement in guiding children through digital games can also positively impact their learning and development [14]. Therefore, it is important for parents to also consider their awareness of science, technology, engineering, and mathematics (STEM) education during the transition from kindergarten to elementary school. This awareness can help enhance their capacity to nurture children's imagination and contribute to their early literacy development [15], [16].

Moreover, the learning experiences provided within the home environment significantly impact early literacy skills [17]. Studies indicate that home environment, parental engagement, and interactions between parents and children are critical for early literacy development [18]. Additionally, parental attributes such as level of education, employment status, marital status, and socioeconomic standing have been recognized as significant children's language indicators [19]–[22].

The involvement of parents in early literacy can significantly influence the children's subsequent reading advancement [23]. Interactions between parents and children can be fostered by participating in shared reading, teaching literacy-related skills, engaging in educational play, and creating a home environment rich in books [24]. Kalayci and Ergül [25] also explain that parental involvement in early literacy refers to children's knowledge, skills, and attitudes related to literacy, which are developed through conventional forms of reading and writing. This involvement encompasses various skill areas, such as spoken language and vocabulary, phonological awareness, and understanding of letters. Additionally, Hemmerechts *et al.* [26] describe the involvement of parents in early literacy as the level of engagement parents have in promoting the literacy development of their children, which includes activities such as reading to children, encouraging independent reading, aiding in understanding new words, and providing learning resources. Hemmerechts [27] further add that parental involvement could extend to expanding language and cultural understanding, being aware of children's literary preferences, and offering feedback while guiding them.

Hemmerechts *et al.* [26] investigated the longitudinal connection between early literacy experiences at home, receptive language abilities, early literacy proficiency, and reading performance in 168 middle- and upper-class children. Their findings suggest that these factors interact in complex ways. Exposure to vocabulary-enhancing books and listening activities positively influenced reading abilities in grade 3. Additionally, parental involvement in early literacy skill development directly predicted reading advancement in first grade and indirectly predicted reading advancement in third grade. The research supports the significance of parental engagement at home and the potential for intervention to enhance parental confidence in fostering literacy skills [27], [28]. As children develop before reaching school age, their home environment plays a pivotal role in their exposure to various literacy materials and interactions with parents regarding these materials [29]. The home literacy environment strongly mediates the connection between parental involvement and reading advancement [22]. Although parental involvement has been recognized for its potential to help children develop early literacy, there are still limited studies on the effectiveness and models of parental involvement and parental involvement programs [23]–[30].

Multiple researchers have emphasized the importance of parental involvement in nurturing their children's development of literacy skills [22], [31]–[40]. Research shows that parental involvement consistently improves student learning [41] and literacy development [26]. Therefore, parental involvement has become a focal point in education [42]. Several research studies, including [43]–[46], have commented extensively on the importance of parental involvement in their children's achievement. Their findings have revealed that parental involvement strongly predicts academic achievement and is essential for first-grade and early-childhood education success. This suggests that parental involvement during early stages shapes children's future learning trajectories and their attitude towards achievement. Hence, the sooner parents engage in children's achievement [37]–[45], [47] the better it will be. Apart from that, the problem is that there is still a need for research explaining the determinants of parental involvement in early literacy development; factors influencing parental involvement are essential to promote effective interventions and programs to enhance parental engagement in early literacy.

According to the literature review which the author has conducted in a decade, there has been found only one literacy talking about family literacy. A critical literature study about family literacy scholarship was conducted in 2012. The search data discovered a research study by Compton-Lilly *et al.* [46] aimed to review family literacy and explain the epistemology underlying family and family literacy studies. It concerns epistemological issues related to culture, class, race, gender, and linguistics served by family literacy programs. However, this research failed to explain the factors influencing parental literacy involvement. The novelty of this research is that the researchers intend to conduct research using scoping reviews to describe the determinants of parental involvement in promoting early literacy. This study provides insights into the determinants influencing parental involvement in early literacy.

## 2. METHOD

The scoping review analysis in this article adheres to the PRISMA guideline [48] to ensure quality reporting. To ensure a comprehensive and systematic approach, we also followed Arskey and O'Malley's methodological framework, which includes the following stages: i) identifying research questions, ii) identifying relevant articles, iii) selecting articles, iv) performing data extraction and charting, v) analyzing, summarizing, and reporting results, and vi) consultation with relevant stakeholders according to the research field. Each of these stages was carefully executed to ensure the robustness of the review process. By combining PRISMA guidelines with Arskey and O'Malley's framework, we aimed to provide a thorough and well-structured analysis that contributes valuable insights to the field.

### 2.1. Stage I: identify research questions

Previous research on the determinant factor of parental involvement in early literacy shows its significant impact on early childhood literacy. However, there is still not much research in practice that explicitly aims at parents. Considering several shortcomings, this study develops the question, "What factors contribute to parental involvement in developing early literacy? specifically, our investigation focuses on discerning the key elements that shape parental engagement in early literacy.

### 2.2. Stage II: identify relevant articles

The strategy to find articles relevant to this research uses databases and literature reviews. Scientific article searches were conducted between 2000 and 2023 through eight databases. Namely SAGE (journals.sagepub.com), Scopus (scopus.com), ResearchGate (researchgate.net), Crossref (crossref.org), PubMed (pubmed.ncbi.nlm.nih.gov), OpenAlex (openalex.org), ScienceDirect (sciencedirect.com), Semantic Scholar (semanticscholar.org), Google Scholar (scholar.google.com), and GARUDA. The search used the keywords 'parental involvement and early literacy'.

- Inclusion criteria: Inclusion criteria must be present and relevant to this study so the article can be used and reviewed. Articles were included when they are: i) original research articles, proceedings, or literature reviews focused on parental involvement and early literacy, and ii) discusses early childhood (0-6 years) or preschool and parents. The following shows the chosen population, concept, and context of the review: population: early childhood ages (0-6 years), Preschoolers (3-7 years) parents. Concept: parental involvement to increase early literacy. Context: family environment, home, and school.
- Exclusion criteria: exclusion criteria are factors that prevent the article from being used as a review. The exclusion criteria are i) papers that do not investigate parental involvement to improve early literacy skills, ii) published more than six years ago, and iii) focused on treating dyslexia, children with reading difficulties, animals, deaf students, at-risk children, impaired children, and intellectual disabilities.

### 2.3. Stage III: perform data filtering

Data filtering was done according to the inclusion and exclusion criteria. The screening process was carried out in two stages: screening abstracts and titles and full-text reviewing. Researchers searched for articles with titles and abstracts relevant to this research. The article is included in the full-text review if its title and abstract are relevant. Full articles were then filtered based on inclusion criteria. The search continued until sufficient articles were found, and no new articles that met the inclusion and exclusion criteria were identified. Figure 1 shows the degree of transparency and reproducibility during the screening process.

### 2.4. Stage IV: charting data

Predefined charting parameters were utilized to extract data from selected papers. The lead author conducted the charting process and subsequently reviewed it with co-authors to evaluate the relevance of the research and extract its pertinent characteristics. The extracted research data, encompassing the necessary criteria outlined in Figure 1, remains subject to adjustment to suit the requirements of this article. Any discrepancies were addressed, with the involvement of a third reviewer if necessary, before generating a document containing the requisite data. Data charting served as a means to confirm the essential information needed for the study.

### 2.5. Stage V: analyzing, summarizing, and reporting results

The data analysis involved the extraction of data previously gathered by the researcher. The data were presented through tables, diagrams, or images to facilitate analysis and enable comparisons across all identified criteria. Subsequently, a descriptive and narrative report of the analysis was provided. Following this, researchers deliberated on the implications of the research findings for practices and policies. Throughout this process, the PRISMA-ScR checklist served as a guide for reporting.

## 2.6. Stage VI: consultation

Following the completion of data analysis and reporting of results, consultations were conducted with experts in the field of parental involvement in early literacy and literature review from the Faculty of Psychology at Airlangga University. These consultations provided valuable insights that complemented the findings obtained from the literature search. The consultation results included the utilization of the rayyan.ai application, adherence to the 2020 PRISMA checklist and flowchart, identification of inclusion-exclusion criteria, emphasis on charting, identification of gaps between studies, assessment of research methods and results, acknowledgment of limitations, and refinement of research questions.

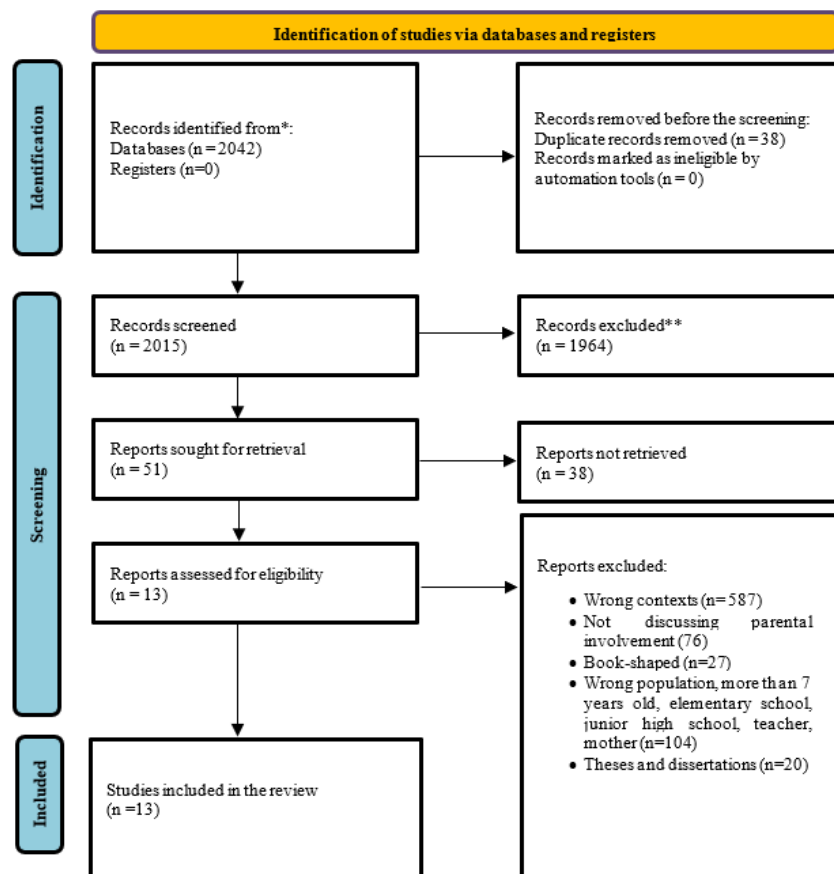


Figure 1. Flow diagram from rayyan.ai

## 3. RESULTS AND DISCUSSION

### 3.1. Result

Factors influencing parental involvement in early literacy development. Among the 13 included studies, there were one study from England, one from the United States, one from Ghana, one from the Netherlands, one from South Africa, one from Indonesia, one from Qatar, one from Arabia, one from Norway, and three from China. However, it has not covered many countries in the world. This indicates that this topic has become a concern of many researchers.

The scoping review indicates that parental involvement in early literacy stems from two main categories: internal and external factors. Internal factors comprise parent depression [31], parent fidelity [33], parental genetics [36], parent's perspective [37], parent's support [37]; motivation and positive beliefs of parents [22], [32], [38]; parental estimation [32], parent expectations [49]. External factors include socioeconomic status (SES) [22], [31], [32], [49]; parent [33], [35], [37], [50]; parental literacy experience [40], [49], [50]; and emergent literacy skills [50].

This study explores determinants of parental involvement in early literacy, revealing a lack of extensive research, with only one study from Indonesia [38] addressing the topic. This underscores the need for further investigation. Most studies employed quantitative methods [22], [31], [32], [34]–[36], [39], [40], [49]–[51]. Indicating a gap for more qualitative, experimental, and modelling research to delve deeper into the subject. Factors influencing parental involvement continue to emerge, with research on predictors dating

back to 1980. While initial studies by Mohan and Tiwari [52] and Leung and Shek [53] stated that parents' educational level did not affect engagement. However, subsequent research revealed significant associations with demographic factors such as race, employment status, educational level, and SES [44], [45].

Szenczi *et al.* [31] found SES and single-parent status as predictors of parental involvement. High SES mothers typically exhibit greater vocabulary use, encouragement, and responsiveness to children's speech compared to medium SES mothers [54]. They engage more in home literacy activities such as book purchasing, reading, library visits, puppet shows, and conversations [55]. Recent studies confirm SES's significance in parental involvement, along with parental beliefs and estimation [22], [32], [56]. Parents' expectations, self-efficacy, motivational beliefs, perceptions of invitations for involvement, and life context also predict involvement [53], [57], [58]. Additionally, parental education impacts involvement [33], [35]–[37], with higher-educated parents showing more engagement in teaching reading [59]. Other factors include time, energy, skills, knowledge, parental role, school/teacher invitation, child invitation [60], parental reading frequency [36], parent perspectives [37], parental motivation and positive beliefs [38], and parental literacy experiences [40]. Home literacy activity also predicts parental involvement in early literacy [49], [50].

### 3.2. Discussion

The findings indicate that demographic factors such as race, employment status, parental education level, and SES play significant roles [61], [62]. Additionally, parental education level has been identified as affecting parental involvement [33]. Studies also demonstrate that at the age of play, children, and school age, fathers have a moderate level of involvement in parenting [33], [35]–[37], [63] revealed that father involvement and ethnic background influence parental involvement, with fathers across different ethnic groups displaying varying willingness and ability to engage in early childhood care. Similar research found differences in parenting styles between European-American and African-American fathers of mixed descent [64], [65].

The results showed that the father's ethnic background influences the father's parenting style towards children. European-American fathers were more inclined to teach their children to read books, while African-American fathers were likelier to engage in play activities. Family economic conditions are understood to be linked to parental involvement [66], [67]. The lower the family's economic situation, the more difficult it is for parents to support their children's skills [68], [69]. Several studies have indicated the influence of SES on parental involvement. Parents with high incomes tend to be more active in supporting their children's education than those with low incomes [22], [70], [71]. In the context of childbirth order, the result from Septiani and Syaodih study [63] showed that the level of father involvement was highest among only children compared to children in the first, second, or youngest birth order.

Program to increase parental involvement in early literacy development. In various countries, many programs have been established to encourage greater parental involvement in early literacy. For instance, in the United States, the Reach Out and Read initiative utilizes routine health check-ups from six months to five years old to encourage parents to bolster their children's cognitive development. Medical professionals are educated to guide parents on their infant's learning processes and how they can facilitate this learning through regular reading sessions [72], [73].

Israel also has a similar program to augment parental engagement in early literacy. Home Instruction for parents of preschool youngsters (HIPPY) program is geared towards parents with children aged 3-5; this program entails weekly home visits, monthly parent-group meetings, and workshops. During the home visits, parents are provided materials from the HIPPY program, including activity books to aid in lesson planning, necessary supplies for activities, and storybooks for reading with their children. Despite refinement over the years, research consistently demonstrates the program's positive impact. It has been widely adopted in fifteen countries across varying income levels, including Turkey, where it is known as the Turkish early enrichment project (TEEP) [74].

Similarly, Paris offers a program named Mallette des Parents, designed to boost parental involvement in children's literacy. The term “Mallette” translates to “briefcase” and comprises materials to assist school leaders in organizing discussions with parents [75], [76]. These materials include guides for fostering positive parent-school relationships, facilitation guides for specific discussion topics, DVD presentations, and illustrations to prompt discussion on various themes. Assessment of parental involvement in the first year of secondary school has revealed increased engagement in school activities, improved student behavior, and some beneficial effects on academic performance, especially among academically vulnerable students [77]. A father needs to involve himself in parental involvement in a family [78], [79]. The support of parents is also needed to involve themselves in their children [80]. Not only that, a mother should also be involved in the child's development [81]. When parents involve themselves with their children, they must know about early childhood [82].

In contrast, Indonesia currently lacks a comparable program to increase parental involvement in children's literacy. Therefore, there is a pressing need to develop and implement such a program. Continuous

evaluation of its implementation is crucial. Indonesia can draw insights from countries with successful programs to increase the home literacy environment by parents.

Despite these insights, this scoping review has limitations. The review's strength is still underdeveloped, with limited references and literature due to the recent emergence of the topic of parental involvement and early literacy development [83], [84]. Future research should aim to explore the forms of involvement in early literacy and develop models of parental involvement. This scoping review has offered a comprehensive overview of the factors influencing parental involvement in early literacy development. There has not been much research on literacy development programs in the home context [85]–[87]. Empirical research on parental involvement is still limited and lacks a theoretical model framework [88]. Furthermore, prior studies support the idea that further research is needed to identify the best parental and child involvement factors to maximize early literacy skills [18]. In education, especially recent research, it is necessary to build a more comprehensive model involving various variables that can explain parental involvement in early literacy. This scoping review should provide helpful knowledge for parents and schools seeking to engage in early literacy development.

#### 4. CONCLUSION

The results of the scoping review show that the factors influencing parental involvement in early literacy are generally divided into two groups, namely internal and external factors. Internal factors that affect parental involvement include parent depression, parent fidelity, parental genetics, parent's perspective, parent's support, parental positive motivation and belief, parental estimation, and parent expectation. In contrast, external factors include SES, parental education, parental literacy experience, family risk home literacy environment, and emergent literacy skills. Understanding these factors is crucial for designing targeted interventions to enhance parental involvement in early literacy across diverse contexts. The findings of this research serve as a foundational resource for future research and targeted intervention programs on parental involvement in early literacy across diverse contextual settings.

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## BIOGRAPHIES OF AUTHORS






**Novia Solichah**    is a student in the Doctoral Psychology Program at Airlangga University in Indonesia. She is interested in exploring early literacy development, intervention programs, and parental involvement. She can be contacted at email: novia.solichah-2022@psikologi.unair.ac.id and noviasolichah@uin-malang.ac.id.



**Nur Ainny Fardana**    is an Associate Professor in the Faculty of Psychology, at Airlangga University in Indonesia. She has expertise in research and training in educational and developmental psychology. Research in educational and developmental psychology, optimizing the development & handling of child development problems, and parental involvement in education and childcare. She can be contacted at email: nurainy.fardana@psikologi.unair.ac.id.



**Samian**    is an Associate Professor in the Faculty of Psychology, at Airlangga University in Indonesia. He has expertise in research of industrial & organizational psychology. Research in leadership, work behavior, and organizational development and change. He can be contacted at email: samian@psikologi.unair.ac.id.